Tubular Band Pass Filters

RLC Electronics' Tubular Band Pass Filters are designed for operation over the frequency range of 15MHz to 8.0 GHz. These fixed tuned filters are constructed utilizing 2 to 12 sections with 3 dB bandwidths of 2 to 60% of center frequency. These filters utilize direct coupled sections.

Specifications

BPF-1-2-3-4-5

Model Number	Center Frequency Range (MHz)	3 dB Bandwidth (% of fc)	Number of Sections	Stopband Attenuation
BPF-	15 to 1000 (BPF-1250) 30 to 2000 (BPF-750) 50 to 4000 (BPF-500)	2 to 60	2 to 12	See Curves on page 84
	75 to 400 (BPF-250)	3 to 40		
	400 to 8000 (BPF-250)	3 to 60		

VSWR: 1.5:1, Bandwidth: Curve 1, see page 84
Passband Insertion Loss (max at fc): Curve 1, see page 84
0.5 dB Bandwidth: Curve 2, see page 84
1 dB Bandwidth: Curve 3, see page 84

Power,Average, Max:
10 Watts BPF-250 25 Watts BPF-500
50 Watts BPF-750 200 Watts BPF-1250
Impedance: 50 Ohms
Connectors: Type N, BNC, TNC, SMA (male or female)
Environmental: MIL-E-5400, Class 1A
Phase Linearity: 5 deg. Curve 4, see page 84

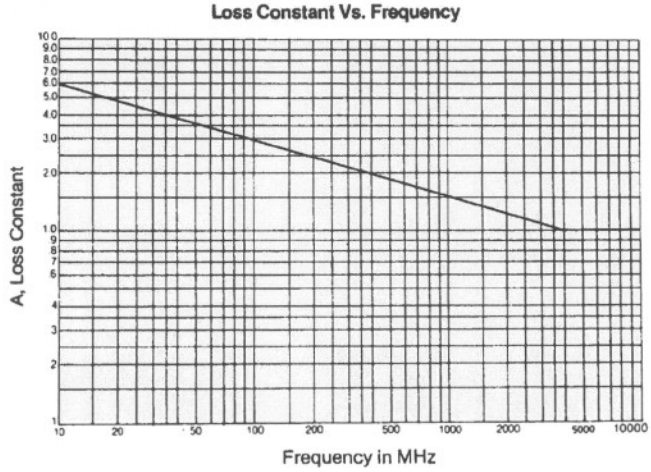
To designate the filter desired use:

1: Filter diameter, "250" is 1/4 inch "500" is 1/2 inch, "750" is 3/4 inch "1250" is 1 1/4 inch
2: Center frequency in MHz
3: 3dB bandwidth in MHz
4: Number of sections
5: "N" for type N, "B" for BNC, "T" for TNC, "R" for SMA. BPF-250 is available with only SMA. Add "M" or "F" for two male or female.

Example: BPF-500-950-95-5-R is a 1/2" diameter, 950 MHz center frequency, 95 MHz 3 dB bandwidth, 5 sections and sma connectors

Insertion Loss

Loss Constant Vs. Frequency



Filter	Max. Insertion Loss at Center Frequency
BPF 250	2.2 x A x (N + .5) ÷ B + 0.2
BPF 500	A x (N + .5) ÷ B + 0.2
BPF 750	.65 x A x (N + .5) ÷ B + 0.2
BPF 1250	.5 x A x (N + .5) ÷ B + 0.2

N is number of sections
B is percent 3dB bandwidth =
100 x 3 (3 dB bandwidth in MHz) ÷ center frequency in MHz

Outline Drawing

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